

Application No.: 09/728857

Case No.: 56208US002

Remarks

Reconsideration is respectfully requested.

Claim Status

Claims 1-55 were previously canceled and claim 67 is currently canceled. Claims 56 and 69-71 are amended and are identified with the proper claim identifier "Currently amended". Claims 56-66 and 68-81 are now pending.

Claim Rejections - 35 U.S.C. § 112

Claims 67-71 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite in view of the claim dependency.

This claim dependency has been corrected and also made to be commensurate with the present amendment. In the present amendment, the limitation of claim 67 is now incorporated in claim 56 and claim 67 has been cancelled. Claims 69, 70 and 71 have been appropriately amended to refer to the proper prior claim.

In view of the amendments, Applicants respectfully submit the rejection should be withdrawn.

Claim Rejections - 35 U.S.C. § 103

The various claim rejections are addressed in order.

Claims 56-66 and 79-81 were rejected under 35 U.S.C. §103 as allegedly obvious over U.S. Patent No. 4,240,943 (Sugawara *et al.*) in view of U.S. Patent No. 4,499,233 (Tetenbaum *et al.*).

The present amendment has amended claim 56 by incorporating the limitation of claim 67. Thus, the present claims are to a water dispersible finishing composition comprising a) a urethane comprising the reaction product of (i) polyisocyanate, (ii) a lower chain alcohol and (iii) a polyethylene oxide containing at least one hydroxy group where the urethane has a weighted average hydrophilic/lipophilic balance (HLB) ranging from about 1 to about 11; and b) a stain blocker selected from a group consisting of a sulfonate aromatic polymer, a polymer comprising a

Application No.: 09/728857Case No.: 56208US002

reaction product of 1 or more acrylic acid monomers, and a polymer comprising the reaction product of 1 or more ethylenically unsaturated monomers and maleic anhydride.

In view of the amendment incorporating the recitation of claim 67, Applicants respectfully submit that the rejection of claims 56-66 and 79-81 under 35 U.S.C. §103 over Sugawara *et al.* in view of Tetenbaum *et al.* should be withdrawn since it is moot.

Claims 67 and 69-72 were rejected under 35 U.S.C. §103 as allegedly unpatentable over Sugawara in view of Tetenbaum and further in view of U.S. 5,373,442 (Knowlton *et al.*), U.S. Patent No. 3,632,419 (Horie *et al.*), and U.S. Patent No. 5,770,656 (Pechhold).

Sugawara describes a textile finishing composition comprising a urethane made by reacting a polyisocyanate with a polyfunctional compound. Such polyfunctional compound may be a polyether polyol. Sugawara notes at col. 3, lines 57-61, that other materials can be added to the composition without particularly pointing out the specifics of these materials. These include the mere mention of a stain preventing agent.

With respect to the claimed invention, Sugawara fails to teach the HLB value range and the presence of a long chain alcohol. There is no assurance or suggestion that the Sugawara urethanes would meet the HLB values claimed herein. More importantly, Sugawara fails to teach two aspects of the present invention, particular stain blocking agents recited in the main claim and the presence of a long chain alcohol.

Furthermore, it is noted that the finishing compositions of Sugawara are for imparting shrinkage resistance, crease resistance, resilience and bulkiness to textiles. (Col. 1) There is no teaching or suggestion in the reference regarding soil resistance.

To fill the gap of the Sugawara reference, Tetenbaum was cited. Tetenbaum discloses a water dispersible modified polyurethane which may contain a long chain alcohol as a capping agent. In the present invention, the long chain alcohol is not used as a capping agent. The capping agent in Tetenbaum is to prevent the polymer from getting too long and becoming water insoluble. (Col. 8, lines 50-52). In contrast, the use of a long chain alcohol in the present invention is used for providing performance of the composition by imparting water repellency and some anti-soiling properties to the polymer. It is particularly noted that the use of the Tetenbaum compositions are for a different purpose than the present invention. Tetenbaum's compositions provide superior efficiency in thickening aqueous compositions. See the abstract in Col. 3, line 9. Since the

Application No.: 09/728857

Case No.: 56208US002

Tetenbaum composition has different properties for a different purpose, it does not teach or even suggest the use of stain blockers as now claimed.

In order to fill the still remaining gap between the prior art and the present invention as claimed, additional references were cited, i.e., Knowlton *et al.*, Horie *et al.*, and Pechhold. Each of these individual patents disclose either soil or stain blocking agents. However, none of the three references suggest that these stain blocking agents may be used in conjunction with a urethane. The stain resistant agents described in Knowlton *et al.* are applied to a polyamide fiber. The soil resistance agents described in Horie are also applied onto polyamide or polyester fabrics. Pechhold provides fluoroesters or thioesters as stain blocking agents, again applied onto fibers. Neither of three references address particularly the combination of these agents with a urethane to provide a finishing composition as claimed.

The present rejection has employed five references for which there is no motivation to combine. None of the secondary references, i.e., Tetenbaum or the additional three references showing stain blocking agents, contains any teaching or suggestion that would motivate one skilled in the art to combine them with the Sugawara patent. "When the patented invention is made by combining known components to achieve a new system, the prior art must provide a suggestion or motivation to make such a combination." *Heidelberger Druckmaschinen AG v. Hantscho Commercial Products Inc.*, 30 USPQ2d 1377 at 1379-80 (Fed. Cir. 1994) and citing *In re Geiger*, 2 USPQ2d 1276, 1278. The Federal Circuit also stated in citing *In re Oetiker*, 24 USPQ2d 1443, 1446 that "the motivation to combine references cannot come from the invention itself." It is respectfully submitted that the Examiner has applied the invention itself to reject the claims by picking and choosing elements from a combination of five references. "The knowledge that separate elements existed in the prior art does not establish obviousness of a patented invention absent the teaching or suggestion in the prior art to combine these elements." *Arkie Lures, Inc. v B.G. Larew Tackle, Inc.* 43 USPQ2d 1294 (Fed. Cir. 1997).

For these reasons, Applicants respectfully submit that the rejection is inappropriate and should be withdrawn.

Claims 73 and 78 were rejected under 35 U.S.C. §103 as allegedly unpatentable over Sugawara, Tetenbaum Knowlton *et al.*, Horie *et al.*, and Pechhold.

Application No.: 09/728857

Case No.: 56208US002

The rejection of claims 73 and 78 is also traversed for the same reasons as above. This rejection is based on the allegation that stain blockers and anti-soiling agents are interchangeable in the art of textiles. Unfortunately, this has been done linguistically in the textile literature. However, applicants maintain that there is a distinction between the two as provided in the specification where separate definitions for each are provided. Furthermore, separate claims are provided for each agent. Applicants submit that anti-soiling agents are distinct from stain blockers. In any event, the arguments made concerning the rejection of claims 67 and 69-72 apply to this rejection. Applicants respectfully submit the rejection should be withdrawn.

Claims 74 and 75 were rejected under 35 U.S.C. §103 as allegedly unpatentable over Sugawara, Tetenbaum, Knowlton *et al.*, Horie *et al.*, and Pechhold in view of U.S. Patent No. Patent No. 5,370,919 (Fieuws *et al.*).

This rejection combines the initial five references and further adds a reference to Fieuws, *et al.* Fieuws *et al.* teaches fluorochemical water and oil-repelling treating compositions. These contain an anti-soiling agent combined with a fluoroaliphatic radical containing a polyoxyalkylene compound. The composition may be applied to carpets and textiles. There is no teaching or suggestion that this reference should be combined with a urethane to arrive at a finishing composition of the present invention or that of Sugawara or even when Sugawara is combined with Tetenbaum. The arguments made above concerning the rejection of claims 67 and 69-72 apply also here. Again, the examiner has recreated the present invention by combining known elements from the prior art without any suggestion or motivation for such a combination. It clearly appears from this rejection that the Office is picking and choosing elements from a host of references to allege obviousness of the present invention as claimed. Applicants respectfully submit the rejection should be withdrawn.

Claim 76 was rejected under 35 U.S.C. §103 as allegedly unpatentable over Sugawara, Tetenbaum, Knowlton *et al.*, Horie *et al.*, and Pechhold in view of U.S. Patent No. 3,493,424 (Mohrlock *et al.*)

Mohrlock teaches that a silsequioxane may be used for treating fibrous materials. Such silsequioxane is a solid in this instance and is applied to fibrous material. There is absolutely nothing in this patent that would suggest it be combined with the urethane made from a polyisocyanate, a polyalkyleneoxide, and a long chain alcohol.

Application No.: 09/728857

Case No.: 56208US002

Applicants respectfully request withdrawal of the rejection.

Claim 77 was rejected under 35 U.S.C. §103 as allegedly unpatentable over Sugawara, Tetenbaum, Knowlton *et al.*, Horie *et al.*, and Pechhold in view of U.S. Patent No. 4,007,305 (Kakar *et al.*).

The Examiner alleges that Kakar teaches a polyvinylpyrrolidone treatment composition for imparting soil-release and repellency to fabrics and refers to the abstract. The abstract does describe a soil release polymer and a soil repellent fluorochemical which are deposited on the surfaces of textile fibers and a resulting textile material is dried to impart the desired non-durable soil release and soil repellency properties. The abstract states:

"The aqueous medium also may contain polyvinylpyrrolidone to further improve the finish."

It is not apparent that the polyvinylpyrrolidone is used as an anti-soiling agent but optionally added to the aqueous medium to improve the finish. In any event, for the reasons already argued above, this claim is also unobvious. This element in this reference does not provide any suggestion to be combined with the other five references and especially Sugawara *et al.*

For these reasons Applicants respectfully submit the rejection should be withdrawn.

Conclusion

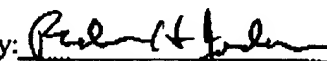
In view of the above, it is respectfully submitted that the Examiner's rejections of the claims as presently amended should be withdrawn and the present claims passed to allowance.

Respectfully submitted,

Date

June 16, 2005

By:



Robert H. Jordan, Reg. No.: 31,973

Telephone No.: (651) 733-6866

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833